

RESEARCH AND DEVELOPMENT
PROJECT APPROVAL REQUEST

Declass Review by NIMA / DoD

I. Identification

25X1A The Plans and Development Staff of the National Photographic
25X1A Interpretation Center, proposes the development of a Prototype Model
II, Projected Scale Micrometer under a fixed price contract with [REDACTED]
[REDACTED] level. This item was included in the Plans
and Development Staff, NPIC Contract Procurement Schedule for Fiscal
Year 1965 under Category III Measurement and Rectification Equipment.

II. Objectives

25X1A The result of this development will be a prototype, advanced model
of the Projected Scale Micrometer built for NPIC by [REDACTED]
under a previous contract. The Model II instrument incorporates numerous
changes to improve the operational usefulness of the original instru-
ment. It differs somewhat in design concept and is basically an attempt
to optimize and apply human engineering to a measuring concept that proved
successful on the original prototype.

III. Background

Photographic interpretation operations present a continual problem
pertaining to the measurement of ultra-small images with the ultimate
goal of providing the necessary clues to aid in their final identification.
A device to solve this problem should be precise, compact, portable and
relatively inexpensive to procure in production quantities. The original
Projected Scale Micrometer was produced with these requirements in mind
and the prototype was generally quite successful in proving the desirability
of the projection type measuring system. The Model II incorporates the
most desirable features of the original and introduces a number of changes
to simplify and improve the measuring process.

IV. Technical Specifications

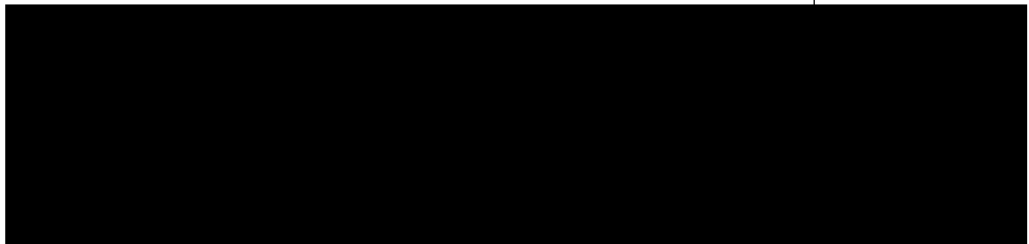
The Model II Projected Scale Micrometer will be a prototype instru-
ment incorporating the following characteristics:

25X1A a. It is an attachment designed to fit on any standard
Model II [REDACTED] Zoom 70.

b. Both the image and the measuring mark may be viewed
while utilizing the complete zoom magnification ranges of the
subject stereomicroscope.

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e. A mechanical counter display the first three (3) digits. The last two (2) digits are read from the graduated drum.

f. The measuring reticle can be rotated through 180°.

g. A fine focusing motion is provided to facilitate bringing the plane of the reticle coincident with the photographic image plane.

h. Increased reticle illumination is provided.

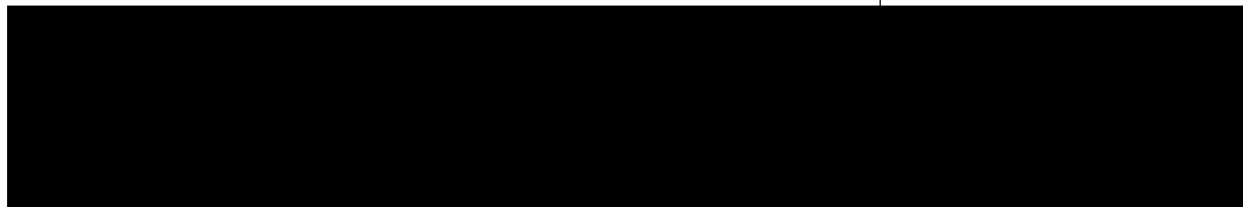
i. An azimuth ring has been added to permit measuring the angles between lines.

V. Contract and Financial Arrangements

This contract will be accomplished under an [redacted] fixed price contract with [redacted] for the development and fabrication of a prototype Model II Projected Scale Micrometer. Delivery is scheduled for 16 weeks from the actual award of the contract. This contract will be sole source because it is basically a modification to a [redacted] development and is used as an attachment to a [redacted] Zoom 70 microscope.

VI. Coordination

The best of numerous suggestions gathered from many different NPIC analysts were incorporated in the specifications for the project. By virtue of contacts throughout industry and the Intelligence Community, it is concluded that no equivalent device is currently in existence.



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